

## SEQUENCE LISTING



## (1) GENERAL INFORMATION:

- (i) APPLICANT: Kucherlapati, Raju  
Jakobovits, Aya  
Brenner, Daniel G.  
Capon, Daniel J.  
Klaphoz, Sue
- (ii) TITLE OF INVENTION: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE
- (iii) NUMBER OF SEQUENCES: 21
- (iv) CORRESPONDENCE ADDRESS:  
(A) ADDRESSEE: FISH & NEAVE  
(B) STREET: 1251 Avenue of the Americas  
(C) CITY: New York  
(D) STATE: New York  
(E) COUNTRY: USA  
(F) ZIP: 10020
- (v) COMPUTER READABLE FORM:  
(A) MEDIUM TYPE: Floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30
- (vi) CURRENT APPLICATION DATA:  
(A) APPLICATION NUMBER: US 08/724,752  
(B) FILING DATE: 02-DEC-1996  
(C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:  
(A) APPLICATION NUMBER: PCT/US96/05928  
(B) FILING DATE: 29-APR-1996
- (viii) ATTORNEY/AGENT INFORMATION:  
(A) NAME: Haley Jr., James F.  
(B) REGISTRATION NUMBER: 27,794  
(C) REFERENCE/DOCKET NUMBER: Cell 4.17
- (ix) TELECOMMUNICATION INFORMATION:  
(A) TELEPHONE: 212-596-9000  
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## (2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 259 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA
- 45

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

AGACCTCTC ACTCACCTGT GCCATCTCCG GGGACAGTGT CTCTAGCAAC AGTGCTGCTT	60
GGAAGTGGAT CAGGCAGTCC CCATCGAGAG GCCTTGAGTG GCTGGGAAGG ACATACTACA	120
GGTCCAAGTG GTATAATGAT TATGCAGTAT CTGTGAAAAG TCGAATAACC ATCAACCCAG	180
ACACATCCAA GAACCAAGTTC TCCCTGCAGC TGAAGTCTGT GACTCCCGAG GACACGGCTG	240
TGTATTACTG TGCAAGAGA	259

## (2) INFORMATION FOR SEQ ID NO:2:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

AGACCTCTC ACTCACCTGT GCCATCTCCG GGGACAGTGT CTCTAGCGAC AGTGCTGCTT	60
GGAAGTGGAT CAGGCAGTCC CCATCGAGAG GCCTTGAGTG GCTGGGAAGG ACATACTACA	120
GGTCCAAGTG GTATAATGAT TATGCAGTTT CTGTGAAAAG TCGAATAACC ATCAACCCAG	180
ACACATCCAA GAACCAAGTTC TCCCTGCAGC TGAAGTCTGT GACTCCCGAG GACACGGCTG	240
TGTATTACTG TGCAAGAGAT ATAGCAGTGG CTGGCGTCCT CTTTGACTGC TGGGGCCAGG	300
GAACCTGGT CACCGTCTCC TCAGGGAGTG CATCCGCCCC AACCTTTTTC CCCCTCGTCT	360
CCTGTGAGAA TTCCCCGTCG GATACGAGCA GCGTGGCCGT	400

## (2) INFORMATION FOR SEQ ID NO:3:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

CTTGACTAGC TGGGGCCAAG GAACCTGGT CACCGTCTCC TCA	43
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## (2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

TATAGCAGCA GCTGG

15

## (2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 77 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

GGGAGTGCAT CCGCCCCAAC CCTTTTCCCC CTCGTCTCCT GTGAGAATTC CCCGTCGGAT

60

ACGAGCAGCG TGGCCGT

77

## (2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 302 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

GACATCGTGA TGACCCAGTC TCCAGACTCC CTGGCTGTGT CTCTGGGCGA GAGGGCCACC

60

ATCAACTGCA AGTCCAGCCA GAGTGTTTTA TACAGCTCCA ACAATAAGAA CTA CT TAGCT

120

TGGTACCAGC AGAAACCAGG ACAGCCTCCT AAGCTGCTCA TTTACTGGGC ATCTACCCGG

180

GAATCCGGGG TCCCTGACCG ATTCAGTGGC AGCGGGTCTG GGACAGATTT CACTCTCACC 240  
 ATCAGCAGCC TGCAGGCTGA AGATGTGGCA GTTTATTACT GTCAGCAATA TTATAGTACT 300  
 CC 302

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 442 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

ACCATCAAGT GCAAGTCCAG CCAGAGTGTT TTGTACACTT CCAGCAATAA GAACTACTTA 60  
 GCTTGGTACC AGCAGAAACC AGGACAGCCT CCTAAACTAC TCATTTACTG GGCATCTACC 120  
 CGGGAATCCG GGGTCCCTGA CCGATTCACT GGCAGCGGGT CTGGGACAGA TTTCCTCTC 180  
 ACCATCCGCA GCCTGCAGGC TGAAGATGTG GCAGTTTATT ACTGTCAGCA ATATTATACT 240  
 ATTCCATTCA ATTTGCGCCC TGGGACCAGA GTGGATATCA AACGAACTGT GGCTGCACCA 300  
 TCTGTCTTCA TCTTCCCGCC ATCTGATGAG CAGTTGAAAT CTGGAAGTGC CTCTGTTGTG 360  
 TGCCTGCTGA ATAACTTCTA TCCCAGAGAG GCCAAAGTAC AGTGGGAAGGT GGATAACGCC 420  
 CTCCAATCGG GTTGGGGAAA AA 442

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 38 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

ATTCACTTTC GGCCCTGGGA CCAAAGTGGA TATCAAAC 38

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 149 base pairs

(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GAACTGTGGC TGCACCATCT GTCTTCATCT TCCCGCCATC TGATGAGCAG TTGAAATCTG	60
GAACTGCCTC TGTTGTGTGC CTGCTGAATA ACTTCTATCC CAGAGAGGCC AAAGTACAGT	120
GGAAGGTGGA TAACGCCCTC CAATCGGGT	149

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 399 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

CCTGTCCCTC ACCTGCGCTG TCTATGGTGG GTCCTTCAGT GGTACTACT GGAGCTGGAT	60
CCGCCAGCCC CCAGGGAAGG GACTGGAGTG GATTGGGGAA ATCAATCAAA GTGGAAGCAC	120
CAATTACAAC CCGTCCCTCA AGAGTCGAGT CATCATATCA ATAGACACGT CCAAGACCCA	180
GTTCTCCCTG AAGTTGAGCT CTGTGACCGC CGCGGACACG GCTGTGTATT ACTGTGCGAG	240
AGAGACTCCC CATGCTTTTG ATATCTGGGG CCAAGGGACA ATGGTCACCG TCTCTTCAGC	300
CTCCACCAAG GGCCCATCGG TCTTCCCCCT GCGCCCTGC TCCAGGAGCA CCTCCGAGAG	360
CACAGCGCGC CCTGGGCTGC CTGGTCAAGG ACTACTTCC	399

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 444 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

CAGTCTCCAT CCTCCCTGTC TGCATCTGTA GGCGACAGAG TCACCATCAC TTGCCAGGCG	60
AGTCAGGACA TTAGTAAGTT TTTAAGTTGG TTTCAACAGA AACCAGGGAA AGCCCCTAAA	120
CTCCTGATCT ACGGTACATC CTATTTGGAA ACCGGGGTCC CATCAAGTTT CAGTGGAAGT	180
GGATCTGGGA CAGATTTTAC TCTCACCATC AGCAGCCTGC AGCCTGAAGA TGTTGCAACA	240
TATTTCTGTA ACAGNATGAT GATCTCCCAT ACACTTTCGG CCCTGGGACC AAAGTGGATA	300
TCAAACGAAC TGTGGCTGCA CCATCTGTCT TCATCTTCCC GCCATCTGAT GAGCAGTTGA	360
AATCTGGAAC TGCCTCTGTT GTGTGCCTGC TGAATAACTT CTATCCCAGA GAGGCCAAAG	420
TACAGTGGA GGTGGATAAC GCCC	444

## (2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 453 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

AGGTCCCTGA GACTCTCCTG TGCAGCCTCT GGATTCACCT TCAGTAGCTA TGGCATGCAC	60
TGGNTCCGCC AGGCTCCAGG CAAGGGGCTG GAGTGGGTGG CAGAAATATC ATATGATGGA	120
AGTAATAAAT ACTATGTAGA CTCCGTGAAG GGCCGACTCA CCATCTCCAG AGACAATTCC	180
AAGAACACGC TGTATCTGCA AATGAACAGC CTGAGAGCTG AGGACACGGC TGTGTATTAC	240
TGTGCGAGAG ACCGACTGGG GATCTTTGAC TACTGGGGCC AGGGAACCCT GGTCACCGTC	300
TCCTCAGCCT CCACCAAGGG CCCATCGGTC TTCCCCCTGG CGCCCTGCTC CAGGAGCACC	360
TCCGAGAGCA CAGCGCGGCC CTGGGCTGCC TGGTCCAAGG ACTACTTCCC CCGAACCGGT	420
GACGGTGTCG TGGAATCAG GCGCTCTGAC CAG	453

## (2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 470 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

56

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

CTGACNCAGT CTCCAGACTC CCTGGCTGTG TCTCTGGGCG AGAGGGCCAC CATCAACTGC	60
AAGTCCAGCC AGAGTGTTTT ATACATCTCC AACAAATAAAA CTACTTAGCT TGGTACCAGC	120
AGAAACCAGG ACAGTCTCCT AAAGTGTCTA TTTACTGGGC ATCTACCCGG AAATCCGGGG	180
TCCCTGACCG ATTCAGTGGC AGCGGGTCTG GGACAGATTT CACTCTCACC ATCAGCAGCC	240
TGCAGGCTGA AGATGTGGCA GTTTATTACT GTCAACAGTA TTATGATACT CCATTCACTT	300
TCGGCCCTGG GACCAAAGTG GATATCAAAC GAACTGTGGC TGCACCATCT GTCTTCATCT	360
TCCC GCCATC TGATGAGCAG TTGAAATCTG GAACTGCCTC TGTGTGTGC CTGCTGAATA	420
ACTTCTATCC CAGAGAGGCC AAAGTACAGT GGAAGGTGGN TAACGCCCCA	470

(2) INFORMATION FOR SEQ ID NO:14:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 462 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

TCCCTCACCT GCGCTGTCTA TGGTGGGTCC TTCAGTGGTT ACTACTGGAC CTGGATCCGC	60
CAGCCCCCAG GGAAGGGGCT GGAGTGGATT GGGGAAATCA TTCATCATGG AAACACCAAC	120
TACAACCCGT CCCTCAAGAG TCGAGTCTCC ATATCAGTTG ACACGTCCAA GAACCAAGTC	180
TCCCTGACAC TGAGCTCTGT GACCGCCGCG GACACGGCTG TGTATTACTG TGCGAGAGGG	240
GGAGCAGTGG CTGCGTTTGA CTACTGGGGC CAGGGAACCC TGGTCACCGT CTCCTCAGCC	300
TCCACCAAGG GCCCATCGGT CTTCCCCCTG GCGCCCTGCT CCAGGAGCAC CTCCGAGAGC	360
ACAGCGCGGC CCTGGGCTGC CTGGTCAAGG ACTACTTCCC CCGAACCGGT GACGGTGTGC	420
TGGAAGTCAG GCGCTCTGAC CAGCGGCGTG CACACCTTCC CA	462

(2) INFORMATION FOR SEQ ID NO:15:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 437 base pairs

(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

TGACCCAGTC TCCATCCTCC CTGTCTGCAT CTGTAGGAGA CAGAGTCACC ATCACTTGCC	60
AGGCGAGTCA GGACATTAGT AACTATTTAA ATTGGTATCA ACAGAAAGCA GGGAAAGCCC	120
CTAAGGTCCT GATCTACGCT GCATCCAATT TGAAGCAGG GGTCCCATCA AGGTTTCAGTG	180
GAAGTGGATC TGGGACAGAT TTTACTTTCA CCATCAGCAG CCTGCAGCCT GAAGATATTG	240
CAACATATTA TTGTCAACAC TATGATAATC TACTCACTTT CGGCGGAGGG ACCAAGGTAG	300
AGATCAAACG AACTGTGGCT GCACCATCTG TCTTCATCTT CCCGCCATCT GATGAGCAGT	360
TGAAATCTGG ACTGCCTCTG TTGTGTGCCT GCTGAATAAC TTCTATCCCA GAGAGGCCAA	420
AGTACAGTGG AAGGTGG	437

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 477 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

AGTCTCTGAA GATCTCCTGT AAGGGTTCTG GATACAGCTT TACCAGCTAC TGGATCGGCT	60
GGGTGCGCCA GATGCCCCGG AAAGGCCTGG AGTGGATGGG GATCATCTAT CCTGGTGACT	120
CTGATACCAG ATACAGCCCC TCCTTCCAAG GCCAGGTCAC CATCTCAGCC GACAAGTCCA	180
TCAGCACCGC CTACCTGCAG TGGAGCAGCC TGAAGGCCTC GGACACCGCC ATGTATTACT	240
GTGCGAGACA GGACGGTGAC TCCTTTGACT ACTGGGGCCA GGAACCCTG GTCACCGTCT	300
CCTCAGCCTC CACCAAGGGC CCATCGGTCT TCCCCCTGGC GCCCTGCTCC AGGAGCACCT	360
CCGAGAGCAC AGCGCGGCCC TGGGCTGCCT GGTCCAAGGA CTACTTCCCC CGAACCGGTG	420
ACGGTGTCGT GGAATCAGG CGCTCTGACC AGCGGCGTGC ACACCTTCCC ACTGCCA	477



## (2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 410 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

TGTCTGCATC TATTGGAGAC AGAGTCACCA TCACTTGCCG GGCAAGTCAG AGCATTAGCA	60
ACTATTTAAA TTGGTATCAG CAGAAACCAG GGCAAAGCCC CTAAGTTCCT GATCTATGGT	120
GCATCCAGTT TGGAAAGTGG GGTCCCATCA NGGTTTCAGTG GCAGTGGATC TGGGACAGAT	180
TTCACTCTCA CCATCAGCAG CCTGCAACCT GNGGATTTTG CAACTTACTA CTGTCAACAG	240
AGTTACAGTA ACCCTCTCAC TTTCGGCGGN GGGACCAANG TGGAGATCAA ACGAACTGTG	300
GCTGCACCAT CTGTCTTCAT CTTCCCGCCA TCTGATGAGC AGTTGAAATC TGGAAGTGCC	360
TCTGTTGTGT GCCTGCTGAA TAACTTCTAT CCCAGAGAGG CCAAAGTACA	410

## (2) INFORMATION FOR SEQ ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 24 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

CTCTGTGACA CTCTCCTGGG AGTT	24
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## (2) INFORMATION FOR SEQ ID NO:19:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 26 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

GAAACGACAC TCACGCAGTC TCCAGC

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(2) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

TTTTCTTTGT TGCCGTTGGG GTGC

24

(2) INFORMATION FOR SEQ ID NO:21:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

GCTGAGGGAG TAGAGTCCTG AGGACTGT

28